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TRANSMITTAL FORM <small>(to be used for all correspondence after initial filing)</small>	Application Number	10/671,842	
	Filing Date	September 25, 2003	
	First Named Inventor	Michael D. Brookshire	
	Art Unit	3677	
	Examiner Name	Reese, David C.	
Total Number of Pages in This Submission	56	Attorney Docket Number	121236.00003 CIP

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failing to produce any prior art reference that demonstrates how the differences between claim 23 and the Diagrams for Faceting reference would be obvious. Claim 23 recites sufficient facets and an apex which has less surface area than each facet from the sets of facets to form a curved contour into a dome shape, see also FIG. 5. In one embodiment, the specification discusses cutting at least eleven rows of facets to achieve the curved contour into a dome shape, see paragraphs [00027]-[00029]. Claim 23 further recites hexagon-shaped facets with opposing corners of the hexagon nested between adjacent facets. The Diagrams for Faceting reference simply does not have these features.

Accordingly, claim 23 is believed to patentably distinguish over the Diagrams for Faceting reference. Claims 24-25 are believed to be in condition for allowance as each is dependent from an allowable base claim.

Claim 56 depends from claim 23 and further recites the apex of the crown as having less surface area than each facet from the sets of facets. The Diagrams for Faceting reference does not have an apex of the dome-shaped crown which has less surface area than each facet from the sets of facets. The top of the gemstone in the Diagrams for Faceting reference is a flat tabletop with a surface area larger than the adjacent facets. The flat tabletop in the Diagrams for Faceting reference negates reading the prior art reference on the claimed dome-shaped crown because it clearly does not form a curved contour in accordance with a dome shape. The apex of the dome-shaped crown has less surface area than each facet from the sets of facets in order to create the dome-shape, which is not found in the Diagrams for Faceting reference.

Accordingly, claim 56 is believed to patentably distinguish over the Diagrams for Faceting reference.

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I. Claims 7-8, 10, 18-19, 21, 27-28, 30, 42-43, and 52-53 are patentable over the Diagrams for Faceting reference

Appellant traverses the rejection of claims 7-8, 10, 18-19, 21, 27-28, 30, 42-43, and 52-53. As acknowledged by the Examiner, the Diagrams for Faceting reference does not disclose the features of claims 7-8, 10, 18-19, 21, 27-28, 30, 42-43, and 52-53. Appellant disagrees. Each of these dependent claims provide additional features of the dome-shaped crown which allows more light to be received and reflected by the gemstone, thus providing greater brilliance and scintillation, see paragraph [00036]. Appellant submits that the Examiner is taking judicial notice by failing to produce any prior art reference that shows the obviousness of the features of claims 7-8, 10, 18-19, 21, 27-28, 30, 42-43, and 52-53.

In addition, claims 7-8, 10, 18-19, 21, 27-28, 30, 42-43, and 52-53 are believed to be in condition for allowance as each is dependent from an allowable base claim.

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J. Conclusion

When properly considered in view of the applicable legal standard, claims 1, 3-5, 7, 8, 10, 13-16, 18-19, 21, 23-25, 27, 28, and 40-56 are believed to be patentable in view of the prior art of record. Appellant requests reversal of the final rejection and allowance of the subject patent application.

Respectfully submitted,
QUARLES & BRADY LLP

June 23, 2008

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VIII. CLAIMS APPENDIX

1. (Previously presented) A diamond, comprising:

a pavilion having a plurality of facets disposed from a girdle to a culet, each of the plurality of facets having a continuous flat surface extending from the girdle to the culet, wherein an edge of a first adjoining facet contacts an edge of a second adjoining facet along a common radial boundary; and

a dome-shaped crown disposed above the girdle, wherein the girdle extends no further than a widest circumference of the dome-shaped crown and the pavilion extends no further than a widest circumference of the girdle, the dome-shaped crown formed from at least five sets of facets cut with monotonically decreasing angles to form a curved contour in accordance with a dome shape from the girdle to an apex of the dome-shaped crown, each facet within the sets of facets being hexagonal in shape with opposing corners of the hexagon nested between adjacent facets, each of the sets of facets having monotonically decreasing surface area from the girdle to the apex of the dome-shaped crown, the apex of the dome-shaped crown having less surface area than each facet from the sets of facets.

2. (Cancelled)

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3. (Previously presented) The diamond of claim 1, wherein the plurality of facets of the pavilion are each cut to an angle of about 40.75 degrees.

4. (Original) The diamond of claim 1, wherein the plurality of facets of the pavilion totals at least sixteen in number.

5. (Original) The diamond of claim 1, wherein the pavilion is substantially conical in shape.

6. (Cancelled)

7. (Previously presented) The diamond of claim 1, further including:

a first set of facets disposed in the dome-shaped crown adjacent to the girdle and cut about 90 degrees with respect to a reference line which is tangential to the apex of the dome-shaped crown; and

a second set of facets disposed in the dome-shaped crown adjacent to the first set of facets and cut about 75 degrees with respect to the reference line.

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8. (Previously presented) The diamond of claim 7, further including:

a third set of facets disposed in the dome-shaped crown adjacent to the second set of facets and cut about 65 degrees with respect to the reference line;

a fourth set of facets disposed in the dome-shaped crown adjacent to the third set of facets and cut about 55 degrees with respect to the reference line; and

a fifth set of facets disposed in the dome-shaped crown adjacent to the fourth set of facets and cut about 45 degrees with respect to the reference line.

9. (Cancelled)

10. (Previously presented) The diamond of claim 7, further including:

a third set of facets disposed in the dome-shaped crown adjacent to the second set of facets and cut about 65 degrees with respect to the reference line;

a fourth set of facets disposed in the dome-shaped crown adjacent to the third set of facets and cut about 56 degrees with respect to the reference line; and

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a fifth set of facets disposed in the dome-shaped crown adjacent to the fourth set of facets and cut about 46 degrees with respect to the reference line.

11. (Cancelled)

12. (Cancelled)

13. (Previously presented) A cut gemstone, comprising:

a pavilion extending from a girdle to a culet, wherein the girdle extends no further than a widest circumference of the crown and the pavilion extends no further than a widest circumference of the girdle; and

a crown in the form of a symmetrical hemisphere formed from at least five sets of facets between the girdle and an apex of the crown including a first set of facets disposed above the girdle and a second set of facets disposed between the first set of facets and an apex of the crown, wherein the first set of facets is cut at a first angle with respect to a reference line which is tangential to the apex of the crown and the second set of facets is cut at a second angle with respect to the reference line which is less than the first angle, each facet within the first and second sets of facets being hexagonal in shape with

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opposing corners of the hexagon nested between adjacent facets.

14. (Original) The cut gemstone of claim 13, wherein each of the plurality of facets of the pavilion are symmetrically disposed and extend continuous from the girdle to the culet.

15. (Original) The cut gemstone of claim 14 wherein each of the plurality of facets of the pavilion are cut to an angle of about 40.75 degrees with respect to the reference line.

16. (Original) The cut gemstone of claim 13, wherein the plurality of facets of the pavilion totals at least sixteen in number.

17. (Cancelled)

18. (Original) The cut gemstone of claim 13, wherein the first set of facets is disposed in the crown adjacent to the girdle and cut about 90 degrees with respect to the reference line and the second set of facets is disposed in the crown adjacent to the first set of facets and cut about 75 degrees with respect to the reference line.

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19. (Previously presented) The cut gemstone of claim 18,
further including:

a third set of facets disposed in the crown adjacent to the
second set of facets and cut about 65 degrees with respect to the
reference line;

a fourth set of facets disposed in the crown adjacent to the
third set of facets and cut about 55 degrees with respect to the
reference line; and

a fifth set of facets disposed in the crown adjacent to the
fourth set of facets and cut about 45 degrees with respect to the
reference line.

20. (Cancelled)

21. (Previously presented) The cut gemstone of claim 13,
further including:

a third set of facets disposed in the crown adjacent to the
second set of facets and cut about 65 degrees with respect to the
reference line;

a fourth set of facets disposed in the crown adjacent to the
third set of facets and cut about 56 degrees with respect to the
reference line; and

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a fifth set of facets disposed in the crown adjacent to the fourth set of facets and cut about 46 degrees with respect to the reference line.

22. (Cancelled)

23. (Previously presented) A cut gemstone, comprising:

a pavilion having a plurality of facets disposed from a girdle to a culet; and

a dome-shaped crown disposed above the girdle, wherein the girdle extends no further than a widest circumference of the dome-shaped crown and the pavilion extends no further than a widest circumference of the girdle, the dome-shaped crown formed from at least five sets of facets cut with monotonically decreasing angles to form a curved contour in accordance with a dome shape from the girdle to an apex of the dome-shaped crown, each facet within the sets of facets being hexagonal in shape with opposing corners of the hexagon nested between adjacent facets.

24. (Original) The cut gemstone of claim 23, wherein each of the plurality of facets of the pavilion are symmetrically disposed and extend continuous from the girdle to the culet.

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25. (Original) The cut gemstone of claim 24, wherein the plurality of facets of the pavilion are each cut to an angle of about 40.75 degrees with respect to the reference line which is tangential to the apex of the dome-shaped crown.

26. (Cancelled)

27. (Previously presented) The cut gemstone of claim 23, further including:

a first set of facets disposed in the dome-shaped crown adjacent to the girdle and cut about 90 degrees with respect to a reference line which is tangential to the apex of the dome-shaped crown; and

a second set of facets disposed in the dome-shaped crown adjacent to the first set of facets and cut about 75 degrees with respect to the reference line.

28. (Previously presented) The cut gemstone of claim 27, further including:

a third set of facets disposed in the dome-shaped crown adjacent to the second set of facets and cut about 65 degrees with respect to the reference line;

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a fourth set of facets disposed in the dome-shaped crown adjacent to the third set of facets and cut about 55 degrees with respect to the reference line; and

a fifth set of facets disposed in the dome-shaped crown adjacent to the fourth set of facets and cut about 45 degrees with respect to the reference line.

29-39. (Cancelled)

40. (Previously presented) A cut gemstone, comprising:

a pavilion having a plurality of facets disposed from a girdle to a culet; and

a dome-shaped crown disposed above the girdle, wherein the girdle extends no further than a widest circumference of the dome-shaped crown and the pavilion extends no further than a widest circumference of the girdle, the dome-shaped crown formed from a plurality of sets of facets cut with monotonically decreasing angles to form a curved contour in accordance with a dome shape from the girdle to an apex of the dome-shaped crown, each facet within the sets of facets being polygonal in shape with opposing corners of the polygon nested between adjacent facets.

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41. (Previously presented) The cut gemstone of claim 40, wherein the plurality of facets of the pavilion are each cut to an angle of about 40.75 degrees with respect to the reference line which is tangential to the apex of the dome-shaped crown.

42. (Previously presented) The cut gemstone of claim 40, further including:

a first set of facets disposed in the dome-shaped crown adjacent to the girdle and cut about 90 degrees with respect to a reference line which is tangential to the apex of the dome-shaped crown; and

a second set of facets disposed in the dome-shaped crown adjacent to the first set of facets and cut about 75 degrees with respect to the reference line.

43. (Previously presented) The cut gemstone of claim 40, further including:

a third set of facets disposed in the dome-shaped crown adjacent to the second set of facets and cut about 65 degrees with respect to the reference line;

a fourth set of facets disposed in the dome-shaped crown adjacent to the third set of facets and cut about 55 degrees with respect to the reference line; and

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a fifth set of facets disposed in the dome-shaped crown adjacent to the fourth set of facets and cut about 45 degrees with respect to the reference line.

44. (Previously presented) The cut gemstone of claim 40, wherein the dome-shaped crown is formed from at least five sets of facets with monotonically decreasing angles to form the curved contour in accordance with the dome shape.

45. (Previously presented) The cut gemstone of claim 40, wherein the polygon is a hexagon.

46. (Previously presented) The cut gemstone of claim 40, wherein the apex of the dome-shaped crown has less surface area than each facet from the sets of facets.

47. (Previously presented) A diamond, comprising:

a pavilion having a plurality of facets disposed from a girdle to a culet; and

a dome-shaped crown disposed above the girdle, wherein the girdle extends no further than a widest circumference of the dome-shaped crown and the pavilion extends no further than a widest circumference of the girdle, the dome-shaped crown formed

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from a plurality of sets of facets cut with monotonically decreasing angles to form a curved contour in accordance with a dome shape from the girdle to an apex of the dome-shaped crown.

48. (Previously presented) The diamond of claim 47, wherein each facet within the sets of facets is polygonal in shape with opposing corners of the polygon nested between adjacent facets.

49. (Previously presented) The diamond of claim 47, wherein the polygon is a hexagon.

50. (Previously presented) The cut gemstone of claim 47, wherein the apex of the dome-shaped crown has less surface area than each facet from the sets of facets.

51. (Previously presented) The diamond of claim 47, wherein the plurality of facets of the pavilion are each cut to an angle of about 40.75 degrees with respect to the reference line which is tangential to the apex of the dome-shaped crown.

52. (Previously presented) The diamond of claim 47, further including:

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a first set of facets disposed in the dome-shaped crown adjacent to the girdle and cut about 90 degrees with respect to a reference line which is tangential to the apex of the dome-shaped crown; and

a second set of facets disposed in the dome-shaped crown adjacent to the first set of facets and cut about 75 degrees with respect to the reference line.

53. (Previously presented) The diamond of claim 51, further including:

a third set of facets disposed in the dome-shaped crown adjacent to the second set of facets and cut about 65 degrees with respect to the reference line;

a fourth set of facets disposed in the dome-shaped crown adjacent to the third set of facets and cut about 55 degrees with respect to the reference line; and

a fifth set of facets disposed in the dome-shaped crown adjacent to the fourth set of facets and cut about 45 degrees with respect to the reference line.

54. (Previously presented) The diamond of claim 47, wherein the dome-shaped crown is formed from at least five sets of facets

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with monotonically decreasing angles to form the curved contour in accordance with the dome shape.

55. (Previously presented) The cut gemstone of claim 13, wherein the apex of the crown has less surface area than each facet from the sets of facets.

56. (Previously presented) The cut gemstone of claim 23, wherein the apex of the dome-shaped crown has less surface area than each facet from the sets of facets.

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IX. -EVIDENCE APPENDIX

No evidence has been submitted pursuant to 37 C.F.R. § 1.130, 1.131, or 1.132, or entered by the Examiner and relied upon by Appellant in the appeal.

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X. RELATED PROCEEDINGS APPENDIX

Appellant currently has an appeal pending for related application number 10/613,281 ('281 appeal). No decision by the Board has been made on the '281 appeal. With the exception of the above related application currently on appeal, neither Appellant, nor Assignee or Appellant's legal representative are aware of any other appeals, interferences or judicial proceedings which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.